Assignment 12

1. Try to build a classiﬁer for the MNIST dataset that achieves over 97% accuracy on the test set. [Hint: the KNeighborsClassiﬁer works quite well for this task; you just need to ﬁnd good hyperparameter values (try a grid search on the weights and n\_neighbors hyperparameters).]
2. Suppose you want to classify pictures outdoor/indoor and daytime/night-time. Should you implement 2 Logistic Regression classiﬁers or one SoftMax Regression Classiﬁer?
3. Implement Batch Gradient Descent with early stopping for SoftMax Regression(WITHOUT USING Scikit Learn)